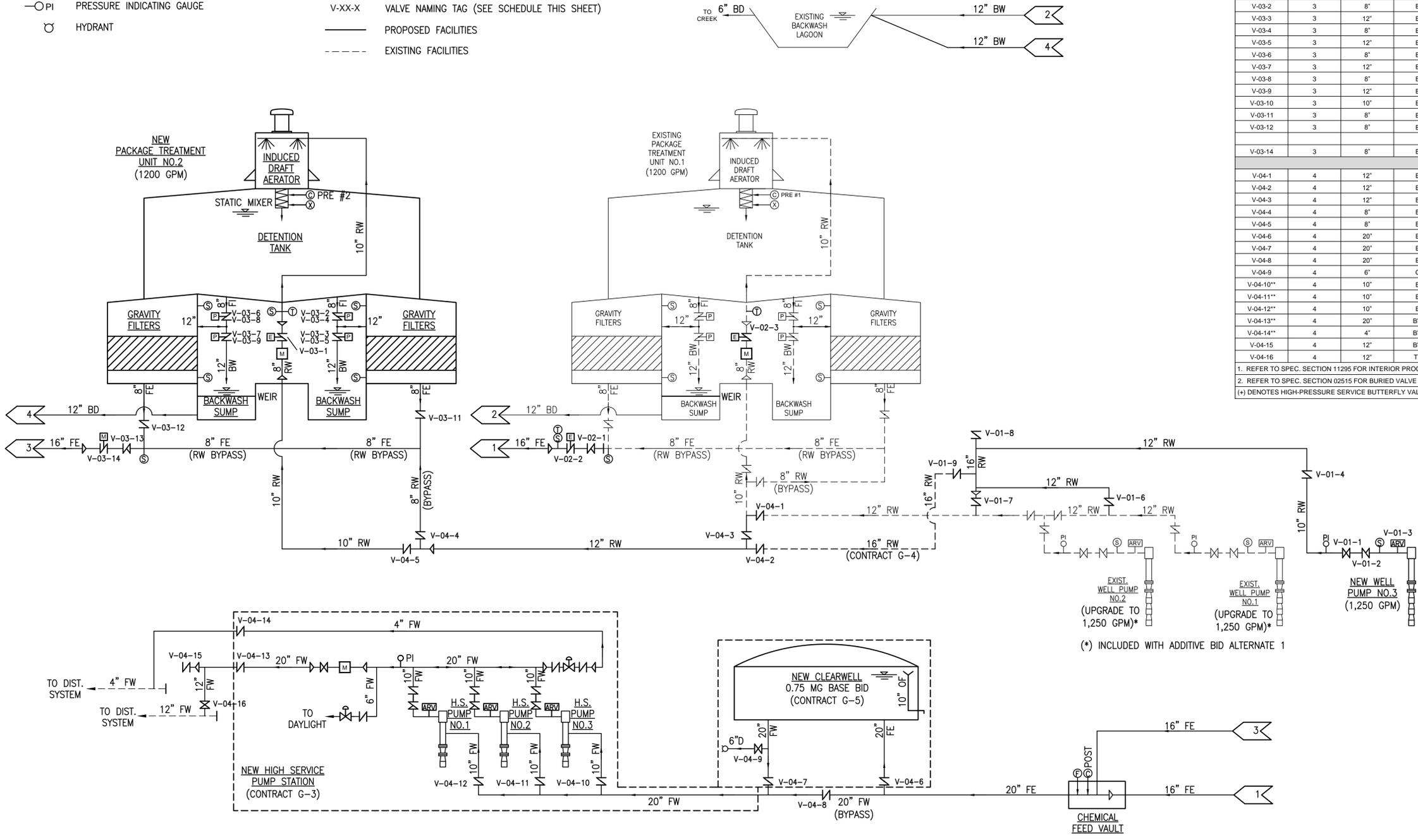


LEGEND

- CHECK VALVE
- BUTTERFLY VALVE
- GATE VALVE
- CONTROL VALVE/RELIEF VALVE
- ELECTRIC/MOTOR-OPERATED BUTTERFLY VALVE
- PNEUMATIC OPERATED BUTTERFLY VALVE
- AIR RELEASE VALVE
- PRESSURE INDICATING GAUGE
- HYDRANT
- PIPE REDUCER
- FLOW METER
- SAMPLE POINT (GRAB)
- CHLORINE FEED POINT (PRE- OR POST-)
- FLUORIDE FEED POINT
- FUTURE/SPARE FEED POINT
- TURBIDIMETER SAMPLE POINT
- VALVE NAMING TAG (SEE SCHEDULE THIS SHEET)
- PROPOSED FACILITIES
- EXISTING FACILITIES

PROCESS VALVE SCHEDULE						
TAG NO.	LOCATION CODE	SIZE	TYPE	ENDS	OPERATOR	SERVICE
V-01-1	1	10"	BV +	FLG	A	WELL PUMP NO.3 ISOLATION
V-01-2	1	10"	CV	FLG	C1	WELL PUMP NO.3 CHECK
V-01-3	1	2"	ARV	NPT	---	WELL PUMP NO.3 AIR RELEASE
V-01-4	1	10"	BV +	MJ	D	WELL NO. 3 ISOLATION
V-01-5	---	---	---	---	---	NOT USED
V-01-6	1	12"	BV +	MJ	D	WELL NO.1 ISOLATION
V-01-7	1	12"	BV +	MJ	D	WELL NO.2 ISOLATION
V-01-8	1	16"	BV +	MJ	D	FUTURE WELL ISOLATION
V-01-9	1	16"	BV +	MJ	D	RAW WATER ISOLATION
V-02-2	2	8"	BV	FLG	E	FILTER EFFLUENT CONTROL
V-02-3	2	8"	BC	FLG	E	RAW WATER INLET CONTROL
V-03-1	3	8"	BV	FLG	E	RAW WATER INLET CONTROL
V-03-2	3	8"	BV	WF	P	FILTER CELL NO.1 INLET
V-03-3	3	12"	BV	WF	P	FILTER CELL NO.1 BACKWASH WASTE
V-03-4	3	8"	BV	WF	P	FILTER CELL NO.2 INLET
V-03-5	3	12"	BV	WF	P	FILTER CELL NO.2 BACKWASH WASTE
V-03-6	3	8"	BV	WF	P	FILTER CELL NO.3 INLET
V-03-7	3	12"	BV	WF	P	FILTER CELL NO.3 BACKWASH WASTE
V-03-8	3	8"	BV	WF	P	FILTER CELL NO.4 INLET
V-03-9	3	12"	BV	WF	P	FILTER CELL NO.4 BACKWASH WASTE
V-03-10	3	10"	BV	WF	A	FILTER CELLS TRANSFER
V-03-11	3	8"	BV	WF	A	FILTER CELL NOS.1 & 2 EFFLUENT ISOLATION
V-03-12	3	8"	BV	WF	A	FILTER CELL NOS.3 & 4 EFFLUENT ISOLATION
V-03-14	3	8"	BV	FLG	E	FILTER EFFLUENT CONTROL
V-04-1	4	12"	BV	MJ	D	EXISTING RAW WATER ISOLATION
V-04-2	4	12"	BV	MJ	D	NEW RAW WATER ISOLATION
V-04-3	4	12"	BV	MJ	D	RAW WATER TRANSFER ISOLATION
V-04-4	4	8"	BV	MJ	D	NEW TREATMENT UNIT RAW WATER
V-04-5	4	8"	BV	MJ	D	NEW TREATMENT UNIT BYPASS
V-04-6	4	20"	BV	MJ	D	CLEARWELL INLET ISOLATION
V-04-7	4	20"	BV	MJ	D	CLEARWELL OUTLET ISOLATION
V-04-8	4	20"	BV	MJ	D	CLEARWELL BYPASS
V-04-9	4	6"	GV	MJ	D	CLEARWELL DRAIN
V-04-10**	4	10"	BV	MJ	D	H.S. PUMP NO.1 SUCTION ISOLATION
V-04-11**	4	10"	BV	MJ	D	H.S. PUMP NO.2 SUCTION ISOLATION
V-04-12**	4	10"	BV	MJ	D	H.S. PUMP NO.3 SUCTION ISOLATION
V-04-13**	4	20"	BV +	MJ	D	FINISHED WATER DISCHARGE ISOLATION
V-04-14**	4	4"	BV +	MJ	D	FINISHED WATER DISCHARGE ISOLATION
V-04-15	4	12"	BV +	MJ	D	FUTURE FINISHED WATER ISOLATION
V-04-16	4	12"	TSV	MJ X FLG	D	EXIST. FINISHED WATER TIE-IN

1. REFER TO SPEC. SECTION 11295 FOR INTERIOR PROCESS VALVE REQUIREMENTS.
 2. REFER TO SPEC. SECTION 02515 FOR BURIED VALVE REQUIREMENTS.
 (*) DENOTES HIGH-PRESSURE SERVICE BUTTERFLY VALVE APPLICATION PER SPECS.



VALVE LOCATION CODE	
1	WELLFIELD
2	EXISTING PLANT BUILDING
3	NEW PLANT BUILDING/TREATMENT UNIT
4	YARD PIPING @ WTP

VALVE TYPE	
GV	GATE VALVE
CV	CHECK VALVE
BV	BUTTERFLY VALVE
ARV	AIR RELEASE VALVE
TSV	TAPPING SLEEVE & VALVE

END TYPE	
FLG	FLANGED
MJ	MECHANICAL JOINT (RESTRAINED)
WF	WAFER
NPT	THREADED

OPERATOR TYPE	
A	HANDWHEEL
B	CHAINWHEEL
C1	SILENT
C2	DOUBLE DOOR
D	OPERATING NUT W/ EXT. STEM & VALVE BOX
P	PNEUMATIC W/ HANDWHEEL (OPEN/CLOSE)
E	ELECTRIC W/ HANDWHEEL (MODULATING)

WATER TREATMENT PLANT PROCESS FLOW DIAGRAM

SCALE: NTS

WTP PROCESS FLOW DIAGRAM AND PROCESS VALVE SCHEDULE

HOOSIER HILLS REGIONAL WATER DISTRICT
 CONTRACTS G-1 & G-5

CLIENT CONTRACT NO. G-1/G-5 GRW PROJECT NO. 3235-04

DRAWING SCALE CHECK: _____ THIS MARK SHOULD MEASURE EXACTLY 1" WHEN PLOTTED

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DESIGNED: DSW
 DRAWN: DSW
 REVIEWED: DRC
 APPROVED: DSW

DATE: FEBRUARY 2012
 SCALE: N.T.S.
 SHEET NO. M-00

This document, originally issued, sealed, and signed by Darren S. Wells, Indiana Professional Engineer, No. 10100200, on March 26, 2012, shall not be used in lieu of a certified document.

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NO.	DESCRIPTION	DATE	BY
1	AS-BUILTS	2/14	JAJ

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 ENGINEER/ARCHITECT: Darren S. Wells
 CONSTRUCTION COMPANY: Mitchell & Stark Const. Co., Inc.
 DATE: FEBRUARY 2014

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